

THE RELATIONSHIP OF CHRONIC RENAL DISEASE
TO THE SELF-OTHER ORIENTATION

By

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Abstract of Dissertation Presented to the Graduate Council
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By

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June, 1978

Chairman: Dr. Donald Avila
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Major Department: Foundations of Education

The purpose of this study was to investigate the relationship of a chronic illness (renal disease) to the Self-Other Orientation. To accomplish this, a sample was drawn from a population of individuals receiving chronic hemodialysis treatment for end-stage kidney disease in Gainesville and Tampa, Florida. Patients who had been on dialysis less than six months were most desirable as the intensity of adjustment to the diagnosis and alteration in lifestyle is greatest during the first few months. The experimental design chosen was a split-plot design with subjects nested within treatments. Individuals receiving treatment in the hospital, home, and outpatient facility were randomly selected. Two measures of the Self-Other Orientation were obtained from each subject: one as early in their dialysis history as possible and one six weeks later. These measures were analyzed across as well as within the three groups (outpatient, inpatient, and home). An observation sheet compiled by the author was completed by the staff on the day of each testing. Their observations were correlated with the subjects' responses on the Ziller Self-Other Orientation Tasks.

The interrelation between the independent variables of time and treatment environment and the dependent variable of self-other orientation were examined. The method of statistical analysis was analysis of variance. The level of significance was set at .05. Correlational analysis and chi-square were utilized to observe the relation of staff observations to test scores.

Four hypotheses were tested:

1. There are significant differences among individual scores on the Self-Other Orientation Tasks within the three treatment groups.
2. An individual's test score will differ from one administration to another.
3. Individuals with low character complexity scores will show different overt behavioral characteristics from individuals with high character complexity scores.
4. There will be a significant correlation between individuals who score low on character complexity and behavioral manifestations of depression, anger, withdrawal, psychosis, death, and suicide.

Both instruments used in the study demonstrated a high index of reliability. The internal consistency of Ziller's instrument using the split-half method, correcting for test length, was .97 with an odd-even split and .98 with a random split. These figures are in close agreement with the split-half reliability obtained by Ziller (.92). An analysis of the stability of the instrument yielded a coefficient of stability of .90. The interrater reliability on the Staff Observation Sheet was .91 using two raters on the same day ($N = 15$).

The first two hypotheses were evaluated using analysis of variance and chi-square tests. The first hypothesis was accepted because the

self-esteem scores for the home dialysis subjects were significantly different than the other two groups. The decision to reject the second hypothesis was prompted by minimal variation in the responses within the three treatment groups.

Hypotheses three and four were tested using Kendall's Tau, a non-parametric correlation coefficient and crosstabulation tables. Hypothesis three was rejected possibly because of a poor spread of responses on the observation sheet. The final hypothesis could not be appropriately tested because the possibility of multiple answers to questions six and seven on the observation sheet would not permit statistical analysis without altering the scoring technique.

The findings of this study have educational and clinical implications. If indeed the home environment has a detrimental effect upon the patient's self-esteem, counseling as well as alterations in home teaching programs may be necessary. Adjustment to a major alteration in one's lifestyle can affect developmental stages. The existence of a chronic illness within oneself can reinforce the fragility of life and the closeness of death. Therefore, the findings of this study as well as the philosophical foundation upon which the study is based have implications to educators in the fields of psychology, education, and health related fields.

CHAPTER I STATEMENT OF THE PROBLEM

Purpose of the Study

The purpose of this study was to investigate the relationship of a chronic illness (renal disease) to the Self-Other Orientation. To accomplish this, a sample was drawn from a population of individuals receiving chronic hemodialysis treatment for end-stage kidney disease in Gainesville and Tampa, Florida. Patients who had been on dialysis less than six months were most desirable as the intensity of adjustment to the diagnosis and alteration in lifestyle is greatest during the first few months. Individuals receiving treatment in the hospital, home, and outpatient facility were tested. Two measures of the Self-Other Orientation were obtained from each subject: one as early in their dialysis history as possible and one six weeks later. These measures were analyzed across as well as within the three groups (outpatient, inpatient, and home). An observation sheet compiled by the author was completed by the staff on the day of each testing. Their observations were correlated with the subjects' responses on the Ziller Self-Other Orientation Tasks.

Background

As medical technology has advanced so has the longevity of persons with chronic and terminal illnesses. Diseases which were once fatal have now been reduced to chronic disorders. Emphesemics once gasping for every breath utilize breathing machinery, in combination with drug therapy and breathing exercises, to maximize their energy potential.

Diabetic complications have been drastically reduced. Parents of children with leukemia can realistically hope for their child's survival. The treatment of cancer with chemotherapy and radiation therapy has allowed the terminally ill to become chronically ill with a glimpse of the future. Persons with chronic renal (kidney) disease can now enjoy the prospect of a nearly normal lifestyle.

Fifteen years ago, end-stage renal failure was invariably followed by death. Today, with the aid of technology, an individual's life may be extended indefinitely by a man-made machine, the artificial kidney. The American Registry of Dialysis Patients reports at least 30,000 individuals are being dialyzed for chronic renal disease (Burton, 1976). In Europe as many as 22,000 patients are treated with the artificial kidney (Jacobs, Brunner, and Chantler, 1977). Many of these individuals enjoy an excellent state of physiologic health because of achievements in controlling the systemic effects of renal dysfunction. However, advances in facilitating psychological adaptation have not been as common. The literature does note that there is a marked period of adaptation to alterations in an individual's lifestyle precipitated by chronic illness (Strauss, 1975; Kagan, 1976). Unfortunately few studies have investigated the patient's perceptions of his illness and its relationship to interaction with others.

This study attempts to investigate changes in an individual's ability to relate to others as well as his feelings toward himself through the use of an instrument developed by Dr. Robert Ziller entitled Self-Other Orientation Tasks. Previously the influence of an individual's inner emotions and feelings on his external behavior has been analyzed by perceptual and phenomenological theorists (Combs and Snygg, 1959;

Combs et al., 1971). An application of their research to today's pressing problems of chronic illness would include its relationship to external behavior, and as a corollary, the relationship of a chronic illness to one's self-other orientation. Renal disease was chosen because of its prevalence and the investigator's familiarity with the illness.

Significance

The factors involved in the care of patients with chronic renal disease will probably continue to increase in volume and complexity over the next several years. Communities will need to make decisions as to how to deal with the social, financial, and emotional factors that will affect them.

The general public and more importantly the patients affected are demanding to know more about chronic illness. Responsibility for management of the illness has been assumed by the patient. Issues of major concern include the social and psychological implications of the illness as well as the effect of a chronic disease on various activities of daily living. Presently there are over 30,000 individuals in the United States requiring maintenance hemodialysis treatment for chronic end-stage kidney failure and yet little research has been conducted examining these individuals' adjustment. An examination of the standard sources reveals no doctoral dissertations related specifically to the proposed study. The sources reviewed were List of Doctoral Dissertations in History in Progress or Completed at Colleges or Universities in the United States 1962-1976, Microfilm Abstracts of Doctoral Dissertations and Dissertation Abstracts January 1962-June 1976, Dissertation Abstracts International January 1962-July 1976, and The Comprehensive Dissertation Index 1861-1972. The topic was researched only to 1962 when the procedure was accepted as a

form of treatment for chronic renal disease. Prior to this time it was regarded as only a temporary treatment for individuals with reversible kidney failure. Those with chronic kidney failure died. In summation, today's educators and health care facilitators need to become aware of an individual's feelings about himself and others in various states of mental as well as physical health.

CHAPTER II REVIEW OF LITERATURE

Self-Other Orientation

The fundamental framework for the theory of self-other orientation is Brunswik's (1956) theory of perception. Brunswik emphasized the interaction of the organism and the environment. Cognitive processes intervene between the stimulus and response interpreting information from the environment and organizing these stimuli according to the needs of the organism. This is similar to Tolman's concept of "cognitive mapping" applied by Ziller to human relationships (Tolman, 1935). This "mapping" process involves the relationship of the self to others. The emphasis is placed on self-other concepts rather than self-concepts because these self-other concepts are assumed to be an important link in the social stimuli-social behavior chain. These self-other concepts include the following self-other relationships (mappings):

- 1) Self above other,
- 2) With other,
- 3) More than other,
- 4) Separated from other,
- 5) Included with other,
- 6) Similar or dissimilar to other,
- 7) More central than other,
- 8) Different than others,
- 9) Close to others, and
- 10) Connected with others.

Ziller states that we code our relationships with others in terms of these mappings.

A major concern of social and perceptual psychologists is the relationship of social experience to an individual's perception, to social behavior, and reactions of others to the individual (Figure 1). This framework of interpersonal behavior places the self-other orientation as the mediator of the interaction between self-perception, social behavior, and the response of others (indicated by the three intersecting circles). The interaction of these three components results in social experience. Social experience is the last link in the self-other social chain. Previous social experiences then affect future cognitive mappings. Thus an individual who maps himself as close to his parents and friends may be expected to perceive himself as dependent on and included with others and behaviorally may tend to move toward activities which require companionship.

Self-other orientations are the catalyst in the chain. If these mapping relationships mentioned previously (self above other, with others, etc.) should change, the interaction of the three concepts represented by the circles as well as future social experiences may be altered. In addition to cognitive mappings, the self-other orientation framework includes various self-other indices. The indices aid in the description of the mapping relationships. Thus, an individual who feels close to others may demonstrate a high index of social interest.

According to Ziller these indices include self-esteem, social interest, marginality, self-centrality, openness, character complexity, and identification and may be viewed in a hierarchy of personal change.

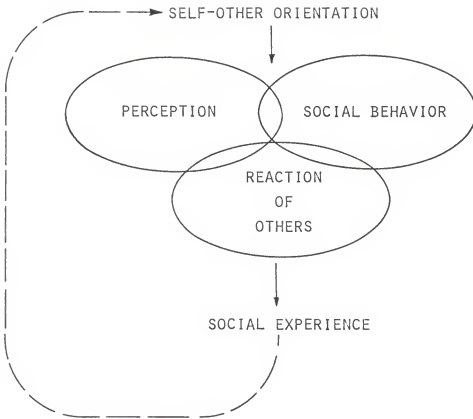


Figure 1. The Relationship of the Self-Other Orientation to an Individual's Perception, Social Behavior, the Reaction of Others and Social Experience

A Hierarchy of Self-Other Orientation

The indices or components of the self-other orientation may be arranged in a hierarchy of personal change (Figure 2). The arrangement of the self-other indices observed in this study is complexity of the self, social interest, and self-esteem. It is assumed that complexity of the self is most easily changed, social interest next, and self-esteem being the most retardant to change. Ziller feels that the most successful attempts at evoking a change in the self-other social system are those which attempt first to change the complexity of the self, then social interest, and ultimately self-esteem (Ziller, 1973).

The stability of the self-system is not threatened unless a change in the self-other orientation is achieved. That is to say, that a change must occur in the self-other indices (character complexity, social interest, self-esteem) before a change is possible in the self-system. The self-other indices are part of the self-system and thus have an effect upon the self as a whole. Values, behaviors, and roles may be changed without altering the stability of the self-system because they are not directly part of the self-system as viewed by Ziller. However, a change in these elements (values, behaviors, and roles) constitutes more threat to the self-system than that incurred by a change in attitudes. This is because of their placement in the personal change hierarchy (Figure 2). If a permanent change in the self-system is to take place it must be preceded by similar changes in the lower components of the hierarchy. Therefore if appropriate changes in the lower levels of the hierarchy are not present the change in the self-system will be transient. For example, a child who has experienced a positive change in self-esteem and has not shown any behavioral changes following the

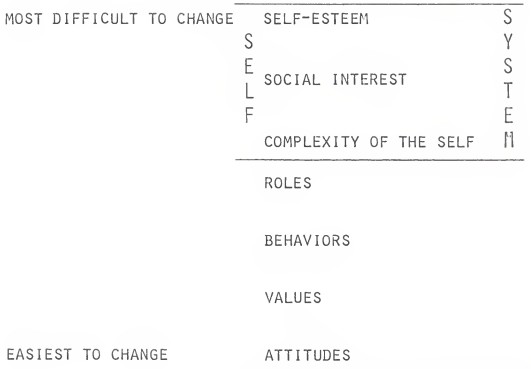


Figure 2. A Hierarchical Representation of Self-Other Orientation to Attitudes, Values, Behaviors, and Roles.

initiation of behavior modification techniques would need to continue therapy until a behavioral change is noted. Maslow (1954) described learning or a stable change as only being achieved when a change in the self-concept has occurred. Ziller agrees with Maslow but believes that the change in the self-concept must be accompanied by a consistent change within the hierarchy.

An important factor in the theory of personal change is its relationship to the self-other indices. These cognitive maps of the self and others are components of the self-concept with the self-concept being the anchoring concept in the self-other social system. It is postulated that these schemata (social interest, complexity of the self, etc.) are enduring relative to roles, behaviors, values, and attitudes but like the other components of the personal change hierarchy they too may change although much more slowly.

Self-Other Orientation - Indices

Character Complexity

Character complexity has been described in varying ways. Lewin (1935) described it as the number of parts composing the whole while Attneave (1957) observed the "number of turns" as a measure of complexity when evaluating the complexity of shapes. Extending this concept Glanzer and Clark (1963) observed a high correlation between the number of words used to describe an array of figures and the complexity of the figures. Ziller states that character complexity can be measured by enumerating the number of adjectives checked as descriptive of the self. When discussing character complexity as it relates to the complexity of an individual rather than the complexity of objects, situations, or other people it is similar to "differentiation" (Schroder, Driver, and

Streufert, 1967). Differentiation can be measured in terms of the number of dimensional units of information generated by a person when he perceives an array of stimuli. Finally, the operational definition of character complexity utilized in the present study is the number of facets of the self perceived by the individual.

The range of stimuli which an individual perceives as similar may affect his interpersonal relationships. Harvey, Hunt, and Schroder (1961) refer to the number of dimensions along which relevant stimuli to the self are ordered as an indicator of the complexity of the self. If it is accepted that facilitation of ordering and organizing stimuli is associated with attending to a wider range of stimuli, then it is anticipated that individuals with complex self-perceptions may consider numerous stimuli as being potentially associated with the self. Thus, the complex individual has a higher probability of matching some facet of himself with other individuals since the multifaceted individual has a greater number of possible matches than the simplex person. The multifaceted individual may also be sought by others since there is a greater probability of finding similarities. It is postulated that complex individuals are more inclined toward assimilation of self and others. They may view their relationship with others in terms of similarities while the more simplex individual may contrast himself with others. Finally, it has been proposed (Ziller, Martell, and Morrison, 1977) that persons with more complex self-perceptions attend to a broader range of stimuli, are more open to feedback from others, perceive more similarities between the self and others and are more responsive to a wide variety of individuals.

Experimental study of character complexity has generally been limited to the observation of cognitive complexity as a variable which

influences people's perceptions of persons and events (Lewin, 1935; Klein, 1951; Bieri, 1955; Mayzner and Tresselt, 1955; Pettigrew, 1958; Rokeach, 1960; Zajonc, 1960; Harvey, Hunt, and Schroder, 1961; Scott, 1963). It was not until 1973 (Ziller) that character complexity and responsiveness to the environment were viewed as interacting variables. Ziller extrapolated from a series of unpublished studies conducted by Bavelas from Stanford University concerning the etiology of superstition. These studies demonstrated that individuals with more complex theoretical systems were able to assimilate more information into the system than other less complex individuals. Thus it is said that they are more responsive to their environment.

This hypothesis associating complexity of the self and responsiveness to the environment, including diverse others, is supported by a study conducted by Thompson (1966). Individuals who were classified as having a complex self (as measured by enumerating the number of adjectives checked as descriptive of the self) chose people twenty years older than them as being similar to themselves. Children who were shown to be complex using the same measure appeared more sociometrically popular (Ziller, Alexander, and Long, 1964).

Self-Centrality

The concept of self-centrality has been used in various contexts throughout the literature. Carrigan in a review of related literature (1960) revealed confusion concerning the concept of self-centrality. A fairly well accepted definition describes self-centrality as the use of the self rather than significant others as the primary point of reference. Gestalt psychologists would refer to the perceived self as the figure and the significant others as the ground.

Adler (1927) extended the concept when he stated that neurotic individuals function with ideas, values, and assumptions which have little or no relation to the ideas of others. The psychoanalytic approach emphasizes the pathologic manifestations of narcissism (Federn, 1959). Excessive narcissism may interfere with the formation of social relationships. Ziller has delved into this concept of social withdrawal in various studies. He has postulated that a low self-esteem and a low social interest may lead to a withdrawal from social encounters and thus a high self-centrality (Ziller, 1973). In a study with East Indian school children and American school children (Ziller et al., 1968), the Indian students were found to have a higher self-centrality. High self-centrality has previously been associated with alienation (unpopular children, children who move frequently to different communities, and children with behavior problems). Indian children may demonstrate this high index of self-centrality because they are the focus of the family unit. Finally, in another study (Ziller and Long, 1964) a high self-centrality score was associated with children who have moved frequently to a different community.

Self-Esteem

Historically, the concept of self-esteem has been described in various ways. In 1890 James discussed self-esteem as being closely related to success or failure in social relationships. Adler (1927) discussed self-esteem as a major construct in personality theory. This was the first time that the concept was treated as an integral part of the self and its development. A loss of self-esteem was described as an inferiority complex by Adler and reported by Ansbacher and Ansbacher (1956). Ziller describes self-esteem as an individual's conception of

his worth (1973). The evaluative process usually occurs within a social structure of significant others. Through a process of social comparison regarding the attitudes and abilities of the self and others the meaning of the self emerges.

Ziller (1973) proposed that self-esteem, a component of the self-system, facilitates regulation of the self-system under conditions of change. He states that self-esteem is the most stable of the self-other indices and that individuals with high self-esteem do not respond immediately to new information, whether of a positive or negative nature. The information is examined for relevance and meaning prior to incorporation into the self-system. The S-O-R models of learning are characteristic of this approach. On the other hand, persons with a low self-esteem do not possess this intermediate step in the appraisal of new information. Their response pattern is characterized by the S-R learning model. These individuals' behavior is frequently inconsistent because they respond to an immediate stimulus, whereas individuals with a high self-esteem are associated with long-range adaptation and consistency of behavior.

The concept of adaptation is further described by Strauss (1975) in reference to chronic illness and self-esteem. She states that individuals who value themselves highly tend to adjust more readily to the controlling effects of medical regimens and a structured lifestyle than those who have little pride in themselves. The latter individuals tend to be "controlled" by their environment while the former remain in control. In Witkins' terms (Witkins et al., 1962) the person with a low self-esteem is field dependent, that is, he conforms to the influence of his environment. This dependence on the environment leads the individual toward inconsistency of behavior as mentioned previously.

The measurement of self-esteem has been plagued by various problems. The majority of studies reviewed which attempt to measure an individual's self-esteem have relied upon a verbal self-report measure. Criticism of this technique has come from several sources (Combs and Soper, 1957; Combs et al., 1963; Cronbach, 1970; Wylie, 1974). The self report relies on the individual's own report of his behavior, feelings, and other beliefs based on the assumption that the person is willing and able to disclose such information about himself. To overcome these limitations in measurement, projective or inferential techniques which are primarily independent of the subjects insight into himself and willingness to reveal himself have been developed. Ziller (1973) described a structured projective technique created to measure an individual's self-esteem through the arrangement of symbols of the self and significant others which required limited verbal responses. The inclusion of social factors in the measurement of self-esteem is characteristic of Ziller's perception of the self.

Numerous studies have been cited in the literature related to the measurement of self-esteem. However, the study most closely related to the present study was conducted by DeSoto, London, and Handel (1965). They refer to a linear "ordering" when discussing how individuals are more comfortable with the placement of objects in a linear configuration than other arrangements (Combs, Raiffa, and Thrall, 1954; DeSoto, London, and Handel, 1965). It has also been concluded that the configuration begins on the left, proceeding to the right with the object in the extreme left position assuming the greatest importance (Morgan, 1944). Other experiments have been conducted to measure self-esteem and various other factors such as social acceptance and popularity (Mann, 1959; Wylie,

1961; Coopersmith, 1959), socioeconomic status (Rosenberg, 1965; Coopersmith, 1967), the neurotic personality (Ziller, Megaw, and DeCencio, 1964; Ziller and Grossman, 1967), winning an election (Ziller, 1973), and parental acceptance (Ziller, 1973).

Openness

The concept of openness has not been described extensively in the literature. Horney (1937) described openness as moving toward people as opposed to moving away from others. According to Horney, openness as it is described in this study refers not only to the perceived number of associations with others (Ziller, 1973) but also to the risk involved in attempting these associations (Horney, 1937; Jourard, 1964). Jourard (1964) described the "open" individual as one who was willing to assume the risk of social relationships. Continuing this theoretical framework is Ziller's definition of openness being the perceived number of associations with other individuals both closely and more distantly associated. The number of associations regarded as significant is also implied in any measurement of openness.

A review of the literature to date reveals only a few experimental studies which use the variable of openness. Ziller (1973) sent the openness item to Israel to be tested on children in a Kibbutz. Interestingly, Kibbutz children were found to perceive themselves as associating with a wider range of others than American children. Further studies need to be conducted on these children before conclusions can be drawn. An earlier study measured the openness of members of a militant black student union organization. These individuals demonstrated a lower measure of openness (number of lines drawn to other individuals than any other student organization on the campus of the University of

Oregon. These two studies comprise the experimental literature in the field.

Marginality

Marginality refers to an individual who may associate with both groups but is not committed to either one. Stonequist (1937) was one of the first to describe the marginal man. He felt that the marginal man was one whom "fate has condemned to live in two societies and in two, not merely different, but antagonistic cultures." The marginal man does not identify with either of two opposing groups. Lewin described the individual as being within a "field of forces" of two diverse groups. Inclusion in one of the two groups automatically prevents membership in the other group. Ziller (1973) furthers this concept by explaining that the marginal individual may not perceive himself as included or excluded by either group. Marginality may imply neutrality, noncommitment, and apathy. On the other hand, it may represent intense conflict created from a desire to belong to both groups. The approach of the present investigation is the individual's orientation to the group rather than the group's orientation toward the individual. Consistent with this framework is the understanding that marginality refers to an individual's perception of the self as being between two groups of significant others.

Marginality has been studied in terms of its relationship to dogmatism (Rokeach, 1960) and certain occupational roles. Rokeach found a negative correlation between marginality and dogmatism demonstrating that the marginal man appears to be less dogmatic. The studies reviewed which were concerned with marginality and occupational roles have been interested in the role of the foreman (Roethlisberger, 1945; Gardner and Whyte, 1945; Etzioni, 1958; Caplow, 1964). However, these studies

described the foreman as the middle man without clearly defining the social groups between which the middle man was located. The "man in the middle" concept was studied further by Ziller (1973) but used first line supervisors compared to a class of business administration students and teachers. Ditz (1964) and Stark (1969) described the salesman as an individual occupying a marginal position.

Identification

Identification has generally been accepted as a concept which involves similarities. Heider (1958) stated that when a person indicates that two objects belong together it is assumed that they possess a similar characteristic. Ziller (1973) discussed this concept by stating that placing another person near the self might indicate a high intensity of identification with the other. Ziller has described identification as relating to the acceptance of another person as a model for the self enhancing the process of socialization by the selection of appropriate models of behavior and further by imitation. Acceptance is anticipated if the modeling and identification with others was successful.

Experimentally, identification was studied in an investigation of East Indian school children (Ziller et al., 1968). The Indian children were found to have a closer identification with mother, father, teacher, and friend than American children. Certain biases may have been introduced into the study because of the cross-cultural sampling. Although matched for age and sex the sampling technique may not have been valid. Indian children in school were chosen as were American children. However the proportion of Indian children who attend school is significantly less than the American proportion. In addition, the American children may

have been more comfortable in a testing environment even though the test and instructions were translated into the Indian childrens' native tongue.

An earlier study (Long, Henderson, and Ziller, 1967) noted that high identification with others, particularly with parents is associated with high self-esteem. This observation was supported by Ziller's study conducted in 1973 with the East Indian school children described above.

Social Interest

The development of the concept of social interest has transpired over the last eighty years. Freud (1914) was perhaps the first to discuss the conflict between the id and the superego as being one between the self and others. The id is representative of one's desires and instinctual responses while the superego is manifested by the expectations of society. Jung (1923) did not refer to the concept of social interest directly; however, he discussed the concepts of extroversion and introversion advocating their respective orientations toward objective reality of subjective determinants as being fundamental to personality theory. He felt that extroverts are highly influenced by their immediate environment and tend to be interested in objective relations and the outside world, whereas introverts are more subjective and self-oriented. After viewing external conditions they appear to select subjective determinants. Adler (1927) was the first to use the term social interest. Although he initially was concerned primarily with the individual he later changed his focus to a concern for the group. In Adler's context, social interest involved the range of a person's affectionate interest and concern for others.

Consistent with Adler's philosophy is Ziller's approach which concludes that some of the conflict existent between the self and the other may be reduced by perceiving oneself as included within a field of significant others. The inclusion of oneself within a field of significant others is equated with placing your fate in the hands of others. Finally Ziller summarizes that the relevance of the relationship of these previous concepts of social interest to its present position as an index of self-other orientation is apparent when self-esteem and ego identity are discussed together and when social interest and group identity are discussed together. These two constructs (self-esteem and social interest) along with the other self-other indices formulate the basis for the self-other system.

Relevant to the development of the concept of social interest and basic to numerous social psychological theorists is the conflict between the need for independence and the need for dependence (Rank, 1936; Ausubel, 1952; Levy, 1955; Harvey, Hunt, and Schroder, 1961). This topic has been given particular attention by physicians, psychiatrists, and social workers involved in the care of individuals with kidney disease (Abram, 1968; Abram, 1969; Bailey, 1972; Brown et al., 1974; Buchanan, 1976; Halper, 1971; Levy, 1972; Reichsman, 1972). Ziller (1964) discussed the conflict present between the need for satisfaction of individual as well as group needs. Patients experiencing chronic maintenance hemodialysis treatment express anxiety over the necessary dependence on the machine and the desire for independence in performing activities of daily living. The struggle for an equilibrium between independence and dependence in the chronic dialysis patient as it relates to the concept of social interest may play a significant role in adjustment to chronic illness.

Various studies have been conducted which demonstrate a relationship between positive reinforcement from significant other individuals (parents, family, friends, work, or peer group) and social interest. A study conducted in 1968 (Ziller et al.) demonstrated significant difference in social interest scores on the Self-Other Orientation Tasks between Asian Indian adolescents and a sample of American adolescents matched for age. Asian Indian children are highly prized and are "the parents' reason for being" (Murphy, 1953). The extremely warm and receptive atmosphere created toward the child by the entire extended family may account for the significant difference in social interest scores between the American and East Indian adolescent social interest measures. Another study (Long, Ziller, and Bankes, 1970) found that problem children in a state institution scored lower on the social interest measure in the Self-Other Orientation Tasks than a control group of children attending the public schools and matched for age. The institutionalized children could not expect approval (positive reinforcement) as could the children in a more normal social environment.

Another description of social interest depicts individuals with a high social interest as expecting support from others and giving support more frequently to others. A study by Bandura and Walters (1963) hypothesized that certain gestures associated as positively reinforcing (smiling, nodding, approving, and patting on the back) may be expected behavior within their social relations and that the individual may in turn bring these gestures to new relationships. Terbovic (1970) tested this hypothesis in a laboratory setting. The results tend to support the hypothesis that those who have received a high degree of social support from others (high social interest) tend to support others.

Various measures of social interest have been developed. Some of the earliest measures of social interest were by Schütz (1958), Shipley and Veroff (1952), Eysenck (1957), and Schachter (1959). Schutz attempted to measure inclusion through a self-report technique. Shipley and Veroff (1952) were interested primarily in the avoidance of painful stimuli and only as a corollary the desire for pleasant stimulation. Eysenck delved more deeply into the area of social interest. Primarily concerned with abnormal behavior and maladjustment in the socialization process, he studied the personality dimension of introversion-extroversion. In relation to self-other orientation Eysenck's theory describes the extrovert as being egocentric while the introvert is other centered. In other words the extrovert functions primarily from his own frame of reference whereas the introvert relates primarily to the social norms. When social interest and Eysenck's instrument measuring introversion were correlated they were found to have a negative correlation. Thus high social interest is associated with a low measure of introversion. Schachter, a behaviorist, studied social interest as an indication of affiliation shown by a choice of a companion. The study demonstrated that individuals preferred to be with another person when they were in anticipation of a painful and unpleasant experience.

CHAPTER III METHODOLOGY AND DESIGN

Definitions

Certain terms should be defined as they were used in this study.

1. Character complexity is defined operationally as the number of facets of the self perceived by the individual.

2. Marginality refers to the individual's perception of himself as being between two separate groups as opposed to being included with one of two groups.

3. Self-centrality is defined as the perception of the social environment from the point of view of the perceiver rather than from the point of view of the other.

4. Identification is associated with the perception of similarity between the self and significant others.

5. Self-esteem is defined as the individual's perception of his worth.

6. Social interest is the individual's perception of himself as included within a field of significant others as opposed to being apart from others.

7. Openness is defined as the perceived number of associations with others closely and more distantly associated.

Hypotheses

To accomplish the purpose of this study, the following hypotheses were tested.

1. There are significant differences among individual scores on the Self-Other Orientation Tasks within the three treatment groups.

2. An individual's test score will differ from one administration to another.

3. Individuals with low character complexity scores will show different overt behavioral characteristics from individuals with high character complexity scores.

4. There will be a significant correlation between individuals who score low on character complexity and behavioral manifestations of depression, anger, withdrawal, psychosis, death, and suicide.

Methodology

Sample

The subjects used in this study were selected from a population of individuals receiving chronic hemodialysis treatment for end-stage kidney disease in Gainesville and Tampa, Florida. Patients who had been on dialysis less than six months were most desirable as the intensity of adjustment to the diagnosis and alteration in lifestyle is assumed to be greatest during the first few months. Individuals who were receiving treatment in the hospital, home, and outpatient facility were tested. No restrictions were placed on selection criteria in terms of age or sex. Individuals who had been transplanted or who had previously been on chronic hemodialysis treatment in another treatment setting were not selected. Subjects meeting the above mentioned criteria were randomly selected. Complete randomization was not possible as the assignment of the treatment method was contingent upon nonmanipulable variables. An equal sample number from the three treatment environments was desired. However, because of patient refusal and morbidity the sample sizes were

not equivalent. They were as follows: inpatient, 12; outpatient, 15; and home dialysis, 15.

Instrumentation

Two research instruments were required to collect the data necessary for the purpose of this study. One was the Ziller Self-Other Orientation Tasks, designed to measure the subject's character complexity, identification, social interest, marginality, self-centrality, openness, and self-esteem. The second instrument was an observation sheet developed by the investigator to be completed by the staff on the day of the subject's testing.

The reliability of the Ziller Self-Other Orientation Tasks

The reliabilities of the measures used in this study were estimated to ascertain the degree of accuracy of the data collected. The reliability can be thought of as the extent to which measurements can be depended on to provide stable, consistent, dependable information (Sax, 1974; Kerlinger, 1967).

When measuring internal consistency the item intercorrelations are the main concern. If the scores on individual items correlate positively, homogeneity of the test is proven. Various methods of estimating reliability of internal consistency are available. The technique chosen for use with the Ziller instrument was the split-half method correcting for test length. The initial method of calculating the internal consistency was an odd-even split. This initial calculation utilized Magnusson's formula for the Pearson Product Moment (Magnusson, 1966). The Spearman Brown correction for test length was then calculated. The reliability coefficient was .97. A random split was then performed. This procedure again correcting for test length yielded a reliability coefficient of .98.

These figures are in close agreement with the split-half reliability obtained by Ziller (.92) (Ziller, 1973). These extremely high reliability estimates were viewed with concern. To assure accuracy another formula was utilized (Kirk, 1968). Again the Spearman Brown formula was employed. The odd-even split yielded a value of .97 and the random split was .99. If we are to assume error free calculations then these indices indicate a high degree of internal consistency. In summary, Ziller's instrument appears to measure consistently the same trait.

An instrument needs to be stable over time. The scores should not vary greatly from one administration to another. This estimate of an instrument's stability is referred to as the coefficient of stability. The instrument was given to eighteen patients twice in two days. A Pearson Product Moment correlation was computed. The coefficient of stability was .90 indicating a high index of stability. Ridgeway (1965) found test-retest reliability after one month for college sophomores to be .72.

Not all the Self-Other Orientation Tasks lend themselves to reliability studies. Other than the character complexity measure, the openness item was found to have a split half reliability of .64 (uncorrected for length with 99 subjects). The self-centrality measure was found to have a split half reliability corrected for test length of .58 when observing 99 subjects. Other studies of reliability on the remaining indices have not been reported in the literature.

The validity of the Ziller Self-Other Orientation Tasks

Character complexity. The first attempt at validation of the character complexity measure was a correlation between the number of adjectives checked as descriptive of the self and independently administered

direct self reports of their ratings on a five point complexity scale. The five points were described as ranging from "very simple" to "very complex." The results indicated that the subjects who checked the greater number of adjectives also rated themselves higher on the complexity scale ($r = .34, p < .01$) (Ridgeway, 1965).

Another validation study related the index of complexity of the self to ratings of complexity of behavior. Each student in an introductory psychology course offered at the University of Florida submitted five photographs which described themselves in relation to their social environment. The photographs were rated by two judges on their degree of complexity defining complexity as "multifaceted, abstract, and requiring many as opposed to a few words to describe." The rater reliability on the photograph complexity ratings was $r = .45$ ($N = 17, p < .05$). All 17 subjects took the character complexity test. The point biserial correlation between the complexity of the self index and the average photograph complexity ratings was $.56$ ($r = 10, p < .05$). These results seem to indicate that the index of complexity of the self is related to the ratings of the complexity of the photographs concerning the self and the social environment.

Concurrent validity was examined when the character complexity measure and other measures related to the cognitive complexity concept were correlated. The related measures included Rokeach's Dogmaticism Scale (1960), Pettigrew's measure of category width (1958) and Kelly's Role Rep Test (1955). The only significant correlation was between the adjective list and the Category Width Scale. The subjects who checked more adjectives also checked the wider the category widths used in a judgment task ($r = .26, p < .05$). These results support a previous finding by Mayzner and Tresselt (1955). They found that category width

correlated significantly with self-concept span. Self-concept span was described as the number of words checked about the self in the Gough Adjective Check List of 300 words. Based on these findings it would appear that a complex person defines himself broadly and in general tends to use broader categories.

The final validation study cited in the literature attempted to relate complexity of the self to a standard extensive personality inventory so as to facilitate its meaning to the entire personality matrix. The California Psychological Inventory was chosen as the personality inventory instrument. Five of the 18 correlations were statistically significant. They were Dominance (.25), Communality (.25), Achievement vs Independence (-.31), Psychological-Mindedness (-.23), and Flexibility (-.31).

Self-esteem. A correlational analysis was performed between the social self-esteem measure and existing measures of the construct. When compared to the Bills-Vance McLean Index, Coopersmith's Self-Esteem, and Diggory's Self-Evaluation no significant correlations were found. Ziller although concerned about these results feels that the social self-esteem occupies a different space in the phenomenal field than the other measures of the self-esteem. The measure itself is non-verbal and invites the subject to incorporate his social frame of reference into his response.

Social interest. Although there appears to be no other instrument which specifically measures the construct of social interest it has been correlated with various related concepts. Schutz's measure of inclusion did not significantly correlate ($r = .22$, $N = 20$) with Ziller's measure

of social interest. A negative correlation was obtained between Eysenck's measure of introversion and high social interest ($r = -.34$, $p < 0.10$).

Marginality. Marginality was validated against other instruments designed to measure similar constructs (concurrent validity). Marginality was examined in relation to Rokeach's (1960) Dogmaticism Scale, Eysenck's (1957) extroversion-introversion instrument, expressed inclusion (Schutz, 1958), and social interest as measured by the Self-Other Orientation Tasks. The short form of Rokeach's Dogmaticism Scale developed by Troidahl and Powell (1964) was utilized. The correlation between the two measures was $-.433$ ($p < 0.001$). In other words the marginal man appears to be less dogmatic. Marginality and social interest were found to correlate negatively ($r = .46$, $p < 0.05$). Marginality was also correlated negatively with extroversion ($r = -.35$ not statistically significant), negatively with expressed inclusion ($r = .21$, not statistically significant), and negatively with age ($r = -.55$, $p < 0.01$).

Construct validity was measured when the relationship between marginality and balance of reinforcement of pro and con arguments on a controversial issue was studied. The results indicated that there were statistically significant differences in supporting behavior between persons with high and low marginality scores ($p < 0.01$). The less marginal individuals tended to support one side more frequently. The hypotheses that the more neutral individuals (those whose selection ratio approaches .50) were the subjects with higher marginality scores was accepted.

A final measure of validity was conducted when the marginality scores of first line supervisors, whose roles have frequently been described as marginal, were compared with a control group who were presumed to have a

higher marginality score than teachers ($r = 3.57, p < 0.01$) and business administration students ($r = 4.55, p < 0.01$). Therefore, from a phenomenological viewpoint, the first line supervisors view themselves as marginal.

Openness. The only validity study noted in the literature on the measure of openness was found in a study in which members of the Black Student Union at the University of Oregon (a militant campus organization) demonstrated fewer connecting lines (social relationships) than any other campus organization.

Identification. When measuring an individual's identification with another the distance between the self and other is used as an indicator of the strength of the identification. A study of children living in fatherless homes supported the prediction of a low identification with a father image (Long and Henderson, 1967). Another result of the same study was that children described by their teachers as being "friendly with teacher" identified more with the teacher than those who were rated by their teachers as being "shy with teacher."

Self-centrality. Support for the validity of the assumption that the closer the individual places himself to the center of the circle the greater the index of self-centrality are the findings of a study conducted by Ziller, Alexander, and Long (1964). They found the sociometric isolates as compared to sociometric stars placed the self in a central position more frequently. The same results were obtained with children who had moved frequently to different towns as opposed to those that lived in the same community (Ziller and Long, 1964) as well as East-Indian adolescents (who are the center of the family) in comparison with American adolescents (Ziller et al., 1968).

The reliability of the Staff Observation Sheet

An observation sheet containing seven multiple choice questions was devised. Each question required the staff to rate various aspects of the patient's external behavior. These sections were to be correlated with their respective measures on the Ziller Self-Other Orientation Tasks. Interrater reliability was an important concern with the Staff Observation Sheet since numerous staff members were utilized. Using two raters on the same day fifteen patients were studied. A correlational analysis was performed yielding a reliability coefficient of .91.

Description of the measures

Self-Other Orientation Tasks. (a) Character complexity. The measure of complexity of the self presents an adjective check list form of 110 high frequency adjectives selected from the Thorndike-Lorge Workbook (1944). The subject is asked to check each adjective which is descriptive of himself (see Appendix A, Item 1). The measure of complexity of the self is the total number of words checked.

(b) Centrality. The subject was asked to draw a circle to represent the self and another circle to represent a friend within a large circular field (see Appendix A, Item 2). A one-zero scoring method was used with a score of one indicating placement of the self rather than the other closer to the center of the circle.

(c) Self-esteem. The subject is asked to arrange symbols of the self and significant others. He is presented with a horizontal array of circles and a list of people such as "a polite person," "a neighbor," and "yourself." The subject is directed to assign each person to a circle. The score is the weighted position of the self. The assumption is that

positions to the left are assumed to be associated with a higher self-esteem (see Appendix A, Item 3).

(d) Openness. The openness item used in the study under discussion is found in Appendix A, Item 4. A circle representing the self is located with a constellation of other circles representing other people. The subject was asked to draw as many lines to the circles (other people) as he could identify relationships. The score for the item is the number of lines drawn between the self and others.

(e) Marginality. The measure of marginality is found in Appendix A, Item 5. The item presents two configurations of enclosed circles each intended to represent a group of people. The two groups as well as the space between and around them are enclosed in a large rectangle. The subject was instructed to draw a circle to stand for himself anywhere in the space provided. Placement of the self inside of neither of the groups is assumed to represent marginality and is given a score of one. If the subject places himself within either of the two groups or if any part of the circle drawn to represent the self coincides at any point with the lines from the group circles, a zero score is ascribed. A score of one is also given if the subject places himself within both of the groups or outside of the entire rectangular field.

(f) Self-esteem vertical. The vertical measure of self-esteem is an exact duplicate of the horizontal self-esteem measure except that it is presented in a vertical orientation (see Appendix A, Item 6). The higher the representation of the self the greater the subject's self-esteem.

Staff Observation Sheet (see Appendix B). (a) Question 1. The first question asked the staff member to describe the physical appearance of the subject. The description progressed from well-groomed and neat to dirty (showing no interest in grooming) with scores from 1 to 4 respectively.

(b) Question 2. This question concerned social interaction. The responses included those individuals who initiate conversations to those who seem to be uncomfortable with conversation. These responses were rated from one to four.

(c) Question 3. This question attempted to evaluate the staff's appraisal of the subject's interest in management of his activities of daily living. Again the progression of responses was from those who take an active role to those who show no interest in assuming any responsibility in their own care. The possible scores ranged from 1 to 4.

(d) Question 4. Question 4 attempts to examine the subject's interest in maintaining previous organizational ties. The responses vary from a score of one which indicates a desire to not only maintain previous ties but also to begin new relationships to a score of four which indicates no interest in beginning new relationships or maintaining old.

(e) Question 5. This question relates to the subject's interest in understanding the dialysis procedure. The responses range from taking an active part in the dialysis treatment (1) to having no understanding or interest in the procedure (4).

(f) Questions 6 and 7. These questions ask the staff to choose as many adjectives which are descriptive of the physiologic status (Question 6) and psychologic state (Question 7) which are appropriate.

Design

The experimental design chosen was a split-plot design. Subjects were nested within treatments. The treatments were home, inpatient, and outpatient delivery of hemodialysis. Subjects were randomly selected within each treatment group. Complete randomization was not possible as the assignment of the treatment setting is contingent upon nonmanipulable variables. The Self-Other Orientation Tasks instrument (Ziller, 1973) was administered twice. The initial testing came early in their treatment history, followed by the second a minimum of six weeks later. The investigator was the primary data collector. The instrument was administered during the hemodialysis treatment but only if the patient's condition was stable. The first hour of treatment was frequently when the testing took place as the effects of alterations in body chemistry and weight are not usually experienced by the patient until approximately one-half of the treatment has been performed. All subjects participated voluntarily. An explanation of the intention of the study was given to all prospective subjects as well as privacy and anonymity being guaranteed.

The purpose and the directions of the instrument were read or given to the subjects as follows:

My name is Lynn Kagan. I am a dialysis nurse and a student. Right now I am finishing my doctorate. However, before I can complete my school work I must do a research project. Because I have been a dialysis nurse I am very interested in the effect of dialysis upon your life. Many people have talked about this but very few have given you a chance to tell us about it.

I am asking for your permission to talk with you and give you a questionnaire twice over the next few months. This questionnaire will simply have you answer a few questions about yourself. It should take no longer than ten to fifteen minutes to complete. The first time you fill out the questionnaire I will ask your name. Then each time you take the questionnaire you will have a number only. I will know which questionnaire is yours but no one else will. When I have completed my study no names will be used. Therefore you are guaranteed anonymity.

Thank you very much for your cooperation. With your help we can better understand the adjustment period involved in dialysis.

At the time of each testing, each subject had a staff member complete a Staff Observation Sheet on them. The same staff member completed the observation sheet for the second testing.

Data Analysis

Hypotheses 1 and 2

Evaluation of these two hypotheses involved an examination of the interrelation between the independent variables of time and treatment environment and the dependent variable of self-other orientation. The two hypotheses to be tested were that there were significant differences among individual scores on the Self-Other Orientation Tasks within the three treatment environments and that an individual's test score will differ significantly from one administration to another. The recommended method of statistical analysis is an analysis of variance (Kirk, 1968). The level of significance was set at $\alpha = .05$.

Analysis of variance is one of the best methods of studying differences (Kerlinger, 1973). To perform an analysis of variance is to partition the total variation in a set of measurements, into the between-group variance (variance due to experimental manipulation) and the within-group variation (random error). The SAS computer program ANOVA was utilized. Analysis of variance was inappropriate when examining the effects of the testing times and groups on the centrality and marginality scores

since the responses were simply yes or no. A chi-square test was chosen since the investigator was interested in determining if there was a significant difference in the percentage of yes or no responses for the three groups. The chi-square test was performed separately for each testing time to determine if there was a difference among the groups with regard to marginality and centrality.

The indices measured were character complexity, centrality, self-esteem, openness, marginality, social interest, and self-esteem vertical. The measure of identification was eliminated because of test length. Social interest was also eliminated because this item was not completed by each subject.

Hypotheses 3 and 4

These hypotheses were concerned with the relationship of various scores on the Self-Other Orientation Tasks and overt behavioral characteristics as described on the Staff Observation Sheet. Questions six and seven on the Staff Observation Sheet were not used since they could have been multiple answers. The dependent variables were broken into two groups: character complexity, self-esteem, openness, and self-esteem vertical made up one group while centrality and marginality comprised the second group. This was necessary since the group consisting of character complexity has data of an ordinal nature while the other group does not.

To establish if there was any relationship between questions one through five on the Staff Observation Sheet and the group of variables including character complexity, Kendall's Tau was compiled. This is a nonparametric correlation coefficient and is interpreted as any other type of correlation. Kendall's Tau was computed at each test time.

In looking at the relationship between questions one to five and the variables marginality and centrality, crosstabulations were set up. A correlation coefficient would not be appropriate here since the dependent variables only have yes or no responses. A chi-square test followed. A significant value indicates the percentage of yes or no answers differs depending on the answer given on the Staff Observation Sheet.

Reliabilities of the Measures

The reliability coefficients of the two measures used in this study were determined. The calculation of internal consistency was achieved first by an odd-even split utilizing Magnusson's formula for the Pearson Product Moment (Magnusson, 1966). This result was then adjusted for test length. A random split was then performed using the same formula and correcting for test length. The test-retest reliability was measured using Magnusson's formula. Eighteen subjects responded to the instrument with a two-day interval between testings. These calculations were performed on the Self-Other Orientation Tasks. The Staff Observation Sheet lent itself to an interrater reliability measure. Fifteen patients were studied using two raters on the same day. A correlational analysis was performed.

CHAPTER IV FINDINGS

Hypotheses

1. There are significant differences among individual scores on the Self-Other Orientation Tasks within the three groups.
2. An individual's test score will differ from one administration to another.
3. Individuals with low character complexity scores will show different overt behavioral characteristics from individuals with high character complexity scores.
4. There will be a significant correlation between individuals who score low on character complexity and behavioral manifestations of depression, anger, withdrawal, psychosis, death, and suicide.

The findings of the statistical analysis of these hypotheses are discussed most clearly if the data are organized according to the statistical procedures performed. This approach will link the first two hypotheses with analysis of variance and chi-square tests. The findings of hypotheses three and four are discussed concomitantly as they were subject to correlational analysis.

Hypotheses 1 and 2

The standard analysis of variance (as described by Kirk) was performed on the individual's scores for the measures of character complexity, self-esteem, openness, and self-esteem vertical. This analysis examined the interrelation of the independent variables of time and

treatment environment and the dependent variable of self-other orientation. The results indicated no significant effects for the above-mentioned variables except for the self-esteem index. Tables 1 through 3 illustrate these findings. The measures of self-esteem differed significantly among the three treatment groups (see Table 4). Duncan's multiple range test was used to discriminate among the three groups. This test indicated the home dialysis group had a significantly greater self-esteem score than the inpatient and outpatient groups (the higher the number the lower the self-esteem). The inpatient and outpatient groups were not significantly different as shown in Table 5. The means for the variables character complexity, self-esteem, openness, and self-esteem vertical for each group, test and group by test combination are found in Appendix C. Thus on the basis of these findings the first hypothesis was accepted although significance was found in only one index, self-esteem.

Table 1
Analysis of Variance Using the Variable Character Complexity

Source	DF	SS	F	p
Group	2	756.35	.42	.418
ID (Group)	38	16108.08		
Test	1	129.38	1.57	.218
Group x Test	2	.43	.003	.997
Residual	38	3128.69		
Total	81	20122.94		

Table 2
Analysis of Variance with the Variable Self-Esteem Vertical

Source	DF	SS	F	p
Group	2	7.97	1.37	.268
ID (Group)	37	107.92		
Test	1	1.51	1.46	.235
Group x Test	2	1.54	.74	.484
Residual	37	38.45		
Total	79	157.39		

Table 3
Analysis of Variance with the Variable Openness

Source	DF	SS	F	p
Group	2	57.99	1.19	.314
ID (Group)	38	922.96		
Test	1	.99	.16	.689
Group x Test	2	28.42	2.35	.109
Residual	38	230.10		
Total	81	1240.45		

Table 4
Analysis of Variance Using the Variable Self-Esteem

Source	DF	SS	F	p
Group	2	35.63	4.89	.013
ID (Group)	37	134.92		
Test	1	.80	.72	.403
Group x Test	2	2.88	1.29	.287
Residual	37	41.32		
Total	79	215.55		

Table 5
Duncan's Multiple Range Test was Performed at the .05 Level

Group	Outpatient	Inpatient	Home
Mean	2.60	2.75	4.03

Means connected by the line are not significantly different.

A chi-square test was done separately for each testing time to determine if there was a difference among the groups with regard to marginality and self-centrality. This statistical procedure was chosen because the responses to the centrality and marginality measures were simply yes (1) or no (2). These tests all proved to be insignificant as shown in Tables 6 through 9.

Table 6
Chi-Square of Centrality for Testing 1

Test 1		
	Yes	No
Home	4	11
Inpatient	2	9
Outpatient	2	13

$$\chi_2^2 = .87, \text{ ns}$$

Table 7
Chi-Square of Centrality for Testing 2

Test 2		
	Yes	No
Home	3	12
Inpatient	6	5
Outpatient	5	10

$$\chi_2^2 = 3.37, \text{ ns}$$

Table 8
Chi-Square of Marginality for Test 1

Test 1		
	Yes	No
Home	9	6
Inpatient	10	1
Outpatient	10	5

$$\chi_2^2 = 3.12, \text{ ns}$$

Table 9
Chi-Square of Marginality for Test 2

Test 2		
	Yes	No
Home	8	7
Inpatient	8	3
Outpatient	11	4

$$\chi_2^2 = 1.65, \text{ ns}$$

It was statistically impossible to examine the effects of the testing times for each of the centrality and marginality scores within the three treatment environments because of the minimal variation in responses. However, tables were set up indicating the number of people who changed their response for each group. On the basis of these findings the second hypothesis was rejected. These findings are illustrated in Tables 10 through 15.

Table 10
Home Patients' Centrality Scores
from Testing 1 to Testing 2

		Test 2	
		Yes	No
Test 1	Yes	2	2
	No	1	10

Table 11
Home Patients' Marginality Scores
from Testing 1 to Testing 2

		Test 2	
		Yes	No
Test 2	Yes	8	1
	No	0	6

Table 12
Inpatients' Centrality Scores
from Testing 1 to Testing 2

Test 2			
		Yes	No
Test 1	Yes	2	0
	No	4	5

Table 13
Inpatients' Marginality Scores
from Testing 1 to Testing 2

Test 2			
		Yes	No
Test 1	Yes	8	2
	No	0	1

Table 14
Outpatients' Centrality Scores
from Testing 1 to Testing 2

Test 2			
		Yes	No
Test 1	Yes	1	1
	No	4	9

Table 15
Outpatients' Marginality Scores
from Testing 1 to Testing 2

		Test 2	
		Yes	No
Test 1	Yes	7	3
	No	4	1

Hypotheses 3 and 4

The analysis of the relationship between the six dependent measures and the Staff Observation Sheet was necessary for the evaluation of hypotheses three and four. Unfortunately, questions six and seven (on the observation sheet) were not used in the initial statistical analysis because they could have multiple answers. As with the first two hypotheses, the dependent variables were broken into two groups, character complexity, self-esteem, openness, and self-esteem vertical composing one group and centrality and marginality comprising the second group. This was necessary since the group consisting of character complexity had data of an ordinal nature while the other group did not.

To establish if there was any relationship between questions one through five on the Staff Observation Sheet and the group of variables including character complexity, Kendall's Tau was computed. This is a nonparametric correlation coefficient and is interpreted as any other type of correlation. Kendall's Tau was computed for each testing. These coefficients can be found in Tables C-3 and C-4 in Appendix C. In both instances none of the coefficients proved to be significant. Therefore, hypothesis three was rejected. Significance is indicated by the second set of figures in each box. Crosstabulation tables were set up between

the questions and the dependent variables. The means, standard deviations, and medians for the variables including character complexity and questions one through five on the Staff Observation Sheet are shown in Tables C-5 and C-6 in Appendix C.

When looking at questions one through five and their relationship to the measures of marginality and self-centrality, crosstabulations were set up. Chi-square tests were also performed. A significant value indicates the percentage of yes or no answers differs depending on the answer given by the staff observations. Unfortunately in many cases these chi-square tests were invalid due to the low frequency of responses in some of the cells.

The scoring of question seven on the Staff Observation Sheet did not lend itself to direct statistical analysis because multiple responses were possible. Therefore the relationship of the index of character complexity to question seven (on the Staff Observation Sheet) was inadequately tested.

Supplemental Correlational Analysis

An additional correlational analysis (Kendall's Tau) was performed on all the indices in the character complexity group, the entire Staff Observation Sheet, and the months the subject had been on dialysis. For the first testing the only significant findings were a negative correlation (-.35) between question five and months on dialysis ($p < .005$) and question six (-.24) and months on dialysis ($p < .05$). These findings were not repeated in the analysis of the results from Test 2. In this set of findings marginality was found to be significantly correlated with months (.27, $p < .05$) as was question four (-.57, $p < .05$) and question six (-.31, $p < .01$). This statistical examination was attempted

to ascertain if the variable, months on dialysis, might be related to either the indices mentioned or the staff's observations.

A final correlational analysis was performed among the indices themselves. For the first testing significant correlations were found between centrality and self-esteem horizontal ($-.38, p < .005$), centrality and self-esteem vertical ($-.31, p < .05$), and self-esteem horizontal and self-esteem vertical ($.34, p < .01$). For the second testing centrality and marginality were significantly correlated ($.30, p < .05$) as were self-esteem horizontal and self-esteem vertical ($.40, p < .005$).

CHAPTER V DISCUSSION

Hypotheses 1 and 2

The findings of the analysis of the first hypothesis appear to contradict the studies reported in the review of literature. These studies hypothesize that individuals receiving home dialysis treatment are better adjusted than those receiving treatment in other dialysis settings. The findings of this study demonstrate a lower self-esteem rating in the home dialysis subjects than in the other groups. The reasons for this difference may involve the patient sample. In the present study, the home dialysis patients were all veterans. The veteran population was chosen because they were the largest population from which a sample could be drawn. Had the veteran population not been chosen it would have been necessary to test individuals from numerous locations. It could be speculated that these individuals because of the nature of their illness as well as the low rehabilitation rate might view themselves as having a lower self-esteem than the other groups. Thus any conclusions concerning home dialysis patients would need to be supported by another study of non-veteran home patients as the variable of environment had not been adequately tested.

The question of a patient's score differing significantly from one testing to the next was not supported by the findings of this investigation. This may in part be attributed to the varied lengths of time the subjects had been receiving treatment. Although the author attempted

to test only those individuals who had been on hemodialysis for less than six months this was not always possible. Thus, although there may have been significant differences between individuals' first and second scores prior to six months of treatment they may have not been shown to be statistically significant because of the effect of the scores of the subjects tested later in their dialysis history.

Hypotheses 3 and 4

Hypotheses three and four were tested with the aid of the Staff Observation Sheet. The shortcomings of this instrument in its initial form were markedly apparent when testing these hypotheses. The majority of the answers for the first five questions were either one or two. This lack of variation among the answers to the questions may have contributed to the insignificant coefficients between questions one through five and the group of variables including character complexity. A solution to this statistical problem might be facilitated by providing more descriptive choices thus forcing the observer to consider varied degrees of a condition. This might encourage a more diversified spread of responses.

Unfortunately questions six and seven were impossible to score and statistically analyze in their original form because of their multiple responses. For this reason a statistical analysis was not performed between the character complexity scores and the possible answers to question seven. To be tested appropriately question seven would need to be reconstructed.

A new scoring technique was established to attempt a correlational study between months on dialysis and the results on the Staff Observation Sheet. Question six was scored by adding any checks on answers one, two, three, seven, and eight. Answers four, five, and six were eliminated

because they were redundant and not specific physiologic indices. Question seven was scored by adding answers one and two and subtracting the total of the sum of the remaining answers. These results were then correlated with months on dialysis yielding significant results in some cases.

Limitations of the Study

The findings of this study are limited by their ability to be generalized to other hemodialysis patients and environments. Specifically any generalizations concerning the home dialysis population would be inappropriate because of the specialized backgrounds of the subjects tested in the home group. In addition because of the diversified length of dialysis treatments a study utilizing individuals who have received treatment for a similar period of time would be necessary if generalizations concerning the length of treatment are to be made. A final apparent limitation to the study involves the Staff Observation Sheet. Although helpful in observing the staff's insight into the patient's behavior it was not constructed for use with statistical analysis procedures. To adequately study the staff's perceptions of patient behavior, more specific questions with only one possible answer should be constructed.

The construct validity of this study may be questioned. The traits being measured by the instrument have not been completely validated. One approach to validating a new construct is to form a miniature theory about the test. A hypothesis is formed about the expected behavior of the persons obtaining different scores. Then data are gathered to prove or disprove the hypothesis and then the validity of the hypothesis is examined. This procedure was attempted with the Staff Observation Sheet. The behaviors of the subjects as perceived by the staff were tested.

Unfortunately the construction of the Staff Observation Sheet did not lend itself to as detailed an analysis as might be necessary to test the hypothesis. In addition, since the dialysis population has never been examined in terms of their self-other orientation it is difficult to do anything but speculate as to their possible behavior. Once their self-other orientation scores are proven to be reliable their expected behaviors may become more apparent.

Therefore, when discussing the validity of the study it is recommended that more investigation with the dialysis population be conducted. It is also advised that the remainder of the indices in the Self-Other Orientation Tasks instrument be validated. If the indices can be adequately validated and additional studies with the dialysis population performed, then the validity of this study and future investigations can be insured.

Implications of the Study

Renal disease affects numerous people every year. Thirty thousand individuals have reached a level of renal insufficiency which requires chronic hemodialysis treatment to sustain life. Their ability to adjust to this transition in their lifestyle is frequently apparent to health care personnel working in the clinical setting. The present researcher found after working in hemodialysis units for four years certain characteristic behaviors became apparent. Patients demonstrated withdrawal from previous social ties, depression, anxiety, apathy, noncompliance to diet and medication regimen. In addition, some patients were able to identify feelings of isolation and being "different" from other people. These feelings and behaviors appeared to be more prevalent in the immediate adjustment period (first three months on dialysis). Other observations

included the speculation that the dialysis environment (home, outpatient, or inpatient) might have some effect on the patient's adjustment. Further, exploration of these observations was necessary if any type of counseling or therapy was to be instituted.

The relationships which were examined by this study were the relationship of the environment to the patient's self-other orientation as well as the relationship of their overt behavior to the self-other orientation. The findings suggest that there may be a difference between groups on at least one of the indices. The relationship of overt behavioral characteristics and certain index scores were not shown to be significantly related. However, because of the limitation of the instrument used to describe the patient's behavior it was difficult to detect any relationship. Conclusions should not be drawn from the results of the testing of hypotheses three and four because the behavioral characteristics presented on the Staff Observation Sheet were not adequately tested. In addition, the supplemental correlational findings seem to indicate that there is a relationship between the length of time on dialysis treatment and the scores of various indices.

The findings of this study can be applied to the clinical setting. Clinicians need to become aware of the psycho-social as well as the physiologic needs of the patient. The emergence of long-term relationships between patients and staff has become increasingly prevalent. These new relationships carry with them a responsibility to be perceptive to the patient's long-term as well as his immediate needs. For example, if an individual begins to show a decrease in social relationships, a low character complexity and a falling self-esteem, then we as health care facilitators need to provide the counseling and support necessary to facilitate a healthier adaptation.

The prevalence of chronic disease requires individuals working in the field to know about the problems incurred in adjusting to a chronic illness. Diseases which were once terminal are now chronic illnesses. This study indicates that the environment in which treatment is received may affect an individual's perception of himself and his relationship to others. Further investigations of the effects of environment need to be studied if we are to encourage maximum rehabilitation. The findings which show that the home dialysis patients demonstrated significantly lower self-esteem has application to almost every dialysis unit in the nation. Most units have home dialysis facilities and encourage patients to choose this form of treatment. Further analysis of home patients' self-perceptions is important if this is to remain a successful environment in which to receive treatment. Occasionally individuals request to be removed from the hemodialysis program and returned to incenter or outpatient treatment. Perhaps it is these individuals who demonstrate a low self-esteem. The implications of this finding involve the patient's success on the program, including his compliance to the medical and dietary regimen as well as his psychological and sociological health.

The hemodialysis population demonstrates many of the characteristics described by Kübler-Ross (1969) concerning grieving. Adjustment to the permanent loss of a previous lifestyle can produce many of the symptoms of the grieving process. The findings of this study (decreased self-esteem, alterations in the indices based on months on treatment and the existence of a grieving process) indicate the need for supportive sociological and psychological counseling. The implications of these findings may involve not only the hemodialysis population but all individuals who are adjusting to permanent alterations in their lifestyle created by chronic illness.

Educators have been concerned for a long time with the development of the individual. Courses have been offered dealing with early childhood development, adolescent identity, and most recently the passages of life characteristically experienced by persons over twenty years of age. The aging process as well as death from a philosophical viewpoint have been incorporated into college and university curriculums. This study relates to many of these topics. Adjustment to a major alteration in one's life-style can affect developmental stages. The existence of a chronic illness within oneself can reinforce the fragility of life and the closeness of death. Therefore, the findings of this study as well as the philosophical foundation upon which the study is based have implications to educators in the field of psychology, education, and all health-related fields.

The relationship of an individual's well being to his learning ability has been discussed by educational theorists. This effect of the body upon the functions of the mind relates indirectly to the purpose of this study. The present study dealt with the relationship of an illness to external behavior and one's perceptions of others. The findings suggest that there is a relationship between the body and the mind. Finally, the implications of stress upon behavior may be tangentially related to this study and also to an individual's well being and ability to learn. Thus, educators may find this study to be valuable in relationship to their theories of stress and the implications of physical well being upon learning.

Specific implications of this study would include the use of Ziller's instrument as a means of further defining personality. Personality theories have long been concerned with the individual's view of himself. Through the use of Ziller's instrument another dimension of the personality can be observed, an individual's relationship to others. The self-

other orientation concepts function as internal monitors and affect social experiences. Through an understanding of these internal monitors their effect upon the personality and subsequent social relationships may be better comprehended.

Suggestions for Further Research

The analysis and interpretation of the data of this study generated several questions that should be investigated in the future. The following is a brief description of the major questions.

1. If hemodialysis patients do experience alterations in their ability to relate to others during their immediate adjustment period to the treatment, then individuals should be tested before they are placed on a treatment schedule in order to establish a baseline.

2. Demographic characteristics may affect their adjustment to treatment and their subsequent relationship to others. Collection of factors such as age, educational background, family support structure, financial situation, previous reactions to stress, and disruption of routine and lifestyle, as well as present and past social relationships, need to be determined.

3. The long range adjustment to chronic hemodialysis needs to be investigated as well as the immediate adjustment period. Is there an alteration in patients' views of themselves and their social relationships after a year of treatment? after two?

4. What about the individuals who receive a transplant and leave hemodialysis treatment or those who reject a kidney and return to treatment? Their perceptions of themselves and their relationships to others should be explored.

5. There are also those patients who leave one dialysis setting for another (home dialysis to outpatient or inpatient, etc.). These patients

should be interviewed for their feelings and perceptions if not tested with an instrument such as the Self-Other Orientation Tasks.

6. The question of staff observation of the patient's behavior is an important topic. The long-term nurse patient relationship provides a unique experience for both the nurse and the patient. Frequently the nursing staff is more sensitive to alterations in the patient's psychosocial world than physicians or family. The modifications previously mentioned in the Staff Observation Sheet would provide the investigator with a more sensitive and useful instrument.

7. The use of other instruments might be considered for a comparison of findings. An instrument which is easy to understand and requires no longer than ten minutes to complete is necessary because of a decreased attention span and possible physiologic problems incurred during the treatment. Instruments with accepted validity could be used to validate the instrument utilized in this study.

8. Renal disease is one of many chronic illnesses affecting thousands of individuals every year. Research needs to be conducted into all types of chronic illness as the adjustment to alterations in an individual's lifestyle may show common characteristics among chronic diseases.

9. A final suggestion would be to measure patient's self-other orientation in units where psychological, sociological, and dietary counseling are a regular part of therapy and then compare these results with those of units without these facilities. In addition, the prevalence of behavioral problems and poor dietary compliance (questions six and seven on the Staff Observation Sheet) could also be evaluated in units with counseling and in those without supplemental counseling services.

APPENDICES

Appendix A

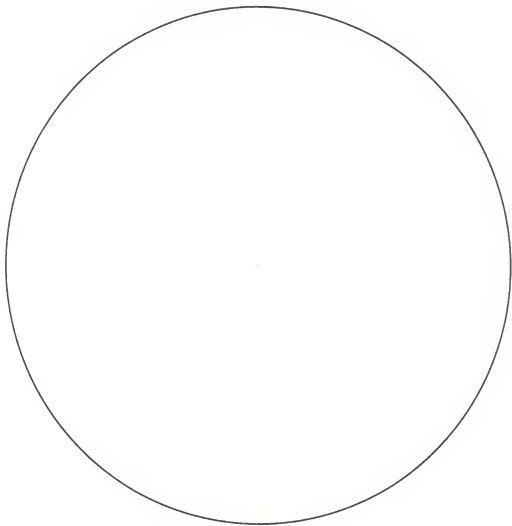
Self-Other Orientation Tasks

Instructions: Here is a list of words. You are to read the words quickly and check each one that you think describes YOU. You may check as many or as few words as you like - but be HONEST. Don't check words that tell what kind of person you should be. Check words that tell what kind of a person you really are.

- | | | |
|--------------------|----------------------|-------------------|
| 1. ____ able | 18. ____ capable | 35. ____ dumb |
| 2. ____ active | 19. ____ careful | 36. ____ eager |
| 3. ____ afraid | 20. ____ careless | 37. ____ fair |
| 4. ____ alone | 21. ____ charming | 38. ____ faithful |
| 5. ____ angry | 22. ____ cheerful | 39. ____ false |
| 6. ____ anxious | 23. ____ clean | 40. ____ fine |
| 7. ____ ashamed | 24. ____ clever | 41. ____ fierce |
| 8. ____ attractive | 25. ____ comfortable | 42. ____ foolish |
| 9. ____ bad | 26. ____ content | 43. ____ friendly |
| 10. ____ beautiful | 27. ____ cruel | 44. ____ funny |
| 11. ____ big | 28. ____ curious | 45. ____ generous |
| 12. ____ bitter | 29. ____ delicate | 46. ____ gentle |
| 13. ____ bold | 30. ____ delightful | 47. ____ glad |
| 14. ____ brave | 31. ____ different | 48. ____ good |
| 15. ____ bright | 32. ____ difficult | 49. ____ great |
| 16. ____ busy | 33. ____ dirty | 50. ____ happy |
| 17. ____ calm | 34. ____ dull | 51. ____ humble |

- | | | |
|----------------------|----------------------|---------------------|
| 52. ____ idle | 72. ____ pleasant | 92. ____ special |
| 53. ____ important | 73. ____ polite | 93. ____ strange |
| 54. ____ independent | 74. ____ poor | 94. ____ stupid |
| 55. ____ jealous | 75. ____ popular | 95. ____ strong |
| 56. ____ kind | 76. ____ proud | 96. ____ sweet |
| 57. ____ large | 77. ____ quiet | 97. ____ terrible |
| 58. ____ lazy | 78. ____ quick | 98. ____ ugly |
| 59. ____ little | 79. ____ responsible | 99. ____ unhappy |
| 60. ____ lively | 80. ____ rough | 100. ____ unusual |
| 61. ____ lonely | 81. ____ rude | 101. ____ useful |
| 62. ____ loud | 82. ____ sad | 102. ____ valuable |
| 63. ____ lucky | 83. ____ selfish | 103. ____ warm |
| 64. ____ mild | 84. ____ sensible | 104. ____ weak |
| 65. ____ miserable | 85. ____ serious | 105. ____ wild |
| 66. ____ modest | 86. ____ sharp | 106. ____ wise |
| 67. ____ neat | 87. ____ silly | 107. ____ wonderful |
| 68. ____ old | 88. ____ slow | 108. ____ wrong |
| 69. ____ patient | 89. ____ small | 109. ____ young |
| 70. ____ peaceful | 90. ____ smart | |
| 71. ____ perfect | 91. ____ soft | |

In the large circle below, draw two circles - one to stand for yourself and a second to stand for a friend. Place an S in the circle for self and an F in the circle for your friend.



The circles below stand for people. Mark each circle with the letter standing for one of the people in the list. Do this in any way you like, but use each person only once and do not omit anyone.

U - someone who is not kind

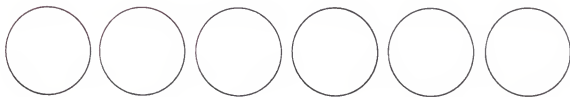
P - a polite person

S - the strongest person you know

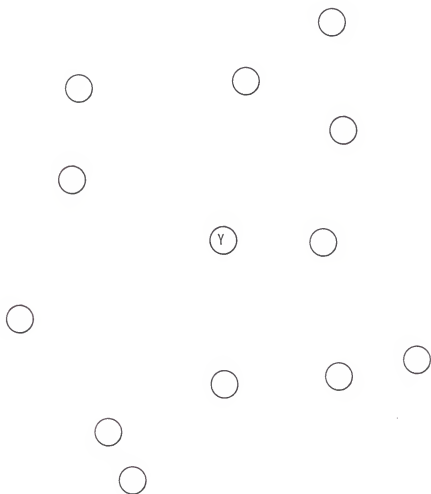
H - the happiest person you know

N - a neighbor

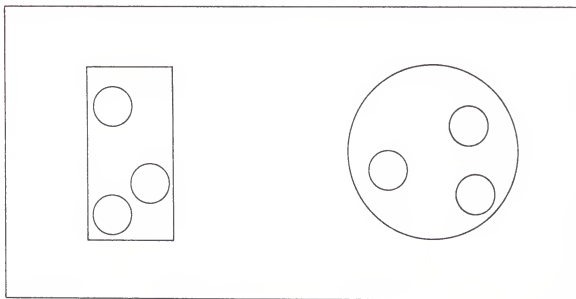
Y - yourself



The circle marked "Y" stands for Yourself. The other circles stand for other people. Draw as many or as few lines as you wish from the circle for Yourself to the circles which stand for other people.



The two figures below stand for two groups of people you know. The small circles stand for other people. Draw a circle to stand for Yourself anywhere in the space below.



The circles below stand for people. Put a "Y" to stand for Yourself.



Appendix B
Staff Observation Sheet

Testing # _____

Patient's Name _____

Physical Appearance (Check only one of the following)

1. Well groomed and neat
2. Acceptable
3. Disheveled
4. Dirty - shows no interest in grooming

Social Interaction

1. Initiates conversations with other patients and/or
Initiates conversations with staff
2. Will take part in a conversation if initiated by another
3. Answers with closed responses only (yes, no)
4. Seems to be uncomfortable in conversations

Management of Activities of Daily Living (Check only one of the following)

1. Takes an active part in his own activities of daily living
(diet, medications)
2. Shows an interest in his own care but has other individual take
the responsibility for his care
3. Shows no interest in his own care, however takes minimal
responsibility for his care
4. Shows no interest in his own care, and takes no responsibility
for his care

Social Involvement (Check only one of the following)

1. Shows an active interest in maintaining previous organizational
ties, or in beginning new memberships (church, family, etc.)
2. Has maintained previous ties, however shows no interest in begin-
ning new social relationships
3. Has maintained previous ties, but shows no interest in dis-
cussing these relationships
4. Has severed previous social relationships and shows no interest
in beginning new social relationships

Understanding of Dialysis (Check only one of the following)

1. Takes an active part in his dialysis treatment (asks questions,
understands the procedure and is attentive to physiologic changes)
2. Understands the procedure, but shows little or no interest in
asking questions or discussing physiologic changes
3. Does not understand the procedure, but will make note of physi-
ologic changes
4. Has no understanding of the procedure and no interest in learning
about the treatment or his physiologic indices

Physiologic Indices (Check ALL which are appropriate)

1. Maintains good weight control (less than 2 kg. weight gain)
2. Shows minimal evidence of edema (less than 2+)
3. Has no complaints during dialysis
4. Has many complaints during dialysis
5. Has no or few demands during dialysis
6. Has many demands during dialysis
7. Blood pressure is under control
8. Shunt is clean and frequently checked for patency by patient

Physiological Indices (Check ALL which are appropriate)

1. Cheerful, cooperative
2. Agreeable
3. Anxious
4. Angry
5. Lonely
6. Rigid and uncooperative
7. Bored
8. Withdrawn and apathetic
9. Sullen
10. Stubborn

Appendix C
Supplementary Statistical Tables

Table C-1
Means for Character Complexity and Openness

Means				
Group*		N	CC	Openness
1		30	35.30	7.00
2		22	27.59	7.36
3		30	32.37	5.43
Test		N	CC	Openness
1		41	30.90	6.41
2		41	33.41	6.63
Group	Test	N	CC	Openness
1	1	15	34.00	6.93
1	2	15	36.60	7.07
2	1	11	26.45	8.09
2	2	11	28.72	6.64
3	1	15	31.07	4.67
3	2	15	33.67	6.20

*Group 1 = Home
Group 2 = Inpatient
Group 3 = Outpatient

Table C-2
Means for Self-Esteem and Self-Esteem Vertical

Means				
Group*		N	SE	SEV
1		30	4.03	2.83
2		20	2.75	2.05
3		30	2.60	2.70
Test		N	SE	SEV
1		40	3.28	2.45
2		40	3.08	2.73
Group	Test	N	SE	SEV
1	1	15	4.33	2.73
1	2	15	3.73	2.93
2	1	10	2.90	2.10
2	2	10	2.60	2.00
3	1	15	2.47	2.40
3	2	15	2.73	3.00

*Group 1 = Home
 Group 2 = Inpatient
 Group 3 = Outpatient

Table C-3
 Kendall's Tau Computed for Testing 1 on Questions One through Five on
 the Staff Observation Sheet and the Group of Variables including Char-
 acter Complexity

	CC	SE	OPEN	SEV
Q1	0.01	0.04	0.11	0.07
	0.99	0.74	0.40	0.59
	43	43	43	43
Q2	0.17	-0.11	-0.19	-0.03
	0.35	0.43	0.36	0.83
	43	43	43	42
Q3	0.08	-0.14	-0.05	0.01
	0.50	0.30	0.71	0.96
	43	43	43	42
Q4	-0.07	-0.16	-0.05	0.20
	0.56	0.23	0.69	0.16
	40	40	40	39
Q5	0.02	-0.06	-0.20	0.11
	0.88	0.63	0.11	0.39
	43	43	43	42

Table C-4
 Kendall's Tau Computed for Testing 2 on Questions One through Five on
 the Staff Observation Sheet and the Group of Variables including Char-
 acter Complexity

	CC	SE	OPEN	SEV
Q1	-0.07	-0.11	0.06	-0.19
	0.56	0.44	0.63	0.18
	41	40	41	40
Q2	0.08	-0.23	-0.12	-0.05
	0.89	0.10	0.38	0.73
	41	40	41	40
Q3	0.06	-0.09	-0.02	-0.03
	0.66	0.54	0.87	0.83
	41	40	41	40
Q4	0.09	-0.12	-0.14	0.12
	0.48	0.39	0.30	0.42
	39	38	39	38
Q5	0.01	0.05	-0.22	0.09
	0.98	0.71	0.10	0.50
	41	40	41	40

Table C-5
The Means, Standard Deviations, and Medians
Test 1

Variable	N	Mean	Std. Dev.	Median
CC	43	3.07	1.60	3.00
SE	43	3.28	1.68	3.00
OPEN	43	6.49	4.01	5.00
SEV	42	2.50	1.33	2.50
Q1	43	1.47	0.74	1.00
Q2	43	1.42	0.73	1.00
Q3	43	1.23	0.57	1.00
Q4	40	1.50	0.68	1.00
Q5	43	1.65	0.90	1.00

Table C-6
The Means, Standard Deviations, and Medians
Test 2

Variable	N	Mean	Std. Dev.	Median
CC	41	3.34	1.53	3.40
SE	40	3.08	1.64	3.00
OPEN	41	6.63	3.88	6.00
SEV	40	2.73	1.48	3.00
Q1	42	1.57	0.70	1.00
Q2	42	1.38	0.58	1.00
Q3	42	1.14	0.35	1.00
Q4	40	1.60	0.74	1.00
Q5	42	1.64	0.88	1.00

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BIOGRAPHICAL SKETCH

Lynn Wenig was born on April 14, 1950. She attended conventional educational systems until her senior year in high school when she joined the musical group "Up With People" and graduated in June 1968 from their accredited traveling high school, "Sing Out High School." This proved to be one of the most rewarding and exciting educational experiences--the opportunity to visit and study foreign cultures and people provided her with knowledge that will be applied throughout her life.

In 1968 Lynn Wenig entered the University of Florida. Her undergraduate years were spent pursuing a Bachelor of Science degree in Nursing. After four years she graduated with Honors from the College of Nursing at the University of Florida. The next year was spent applying her nursing skills by working in the Intensive Care Unit at the University Medical Center. In June of 1973 she reenrolled at the university in a Master's program through the College of Education, Health-Related Professions. Although regularly attending classes at the university she continued her nursing practice. In March 1975 she graduated with a master's in nursing education.

A desire to maintain an active nursing career led Lynn Wenig to accept a head nurse's position at the Veterans Administration Hospital in their newly created Hemodialysis Unit. This job entailed creating policies, standards of patient care as well as working in the clinical field. In addition she designed and taught a hemodialysis training course. This course was offered to the community five times and was one month in duration.

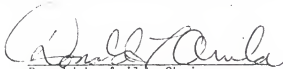
These teaching experiences prompted her to enroll in the Doctor of Philosophy program through the College of Education. Initially she maintained her professional as well as her educational responsibilities. However as the demands of her program increased she devoted her time entirely to her doctoral courses. After completion of all of her coursework she moved to Colorado Springs, Colorado.

Lynn Wenig became Lynn Wenig Kagan in December of 1973. She married Dr. Abbott Kagan II, an orthopedic surgeon. They have one child, Anneliese, born in June 1977.

The last four years have been filled with lectures at conventions (Southeastern Dialysis and Transplant Association 1975-1978 and at the University of Florida Medical-Surgical Nursing 1975-1977). In addition to lecturing, her publications include "Resocialization of the Renal Patient," Dialysis and Transplantation, 5:49-52 (1976), and Renal Disease: A Manual of Patient Care (McGraw-Hill, 1979), a textbook for both clinical and reference use.

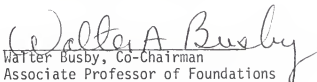
Upon completion of her doctorate Lynn Wenig Kagan is considering accepting a faculty position at one of the colleges or universities in the State of Colorado. She hopes to teach nursing at an undergraduate as well as a graduate level and maintain a part-time clinical appointment to aid in maintaining her nursing skills. Special interests include adjustment to chronic illness, death education and long-term groups, and child abuse.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



Donald L. Avila, Chairman
Professor of Foundations of Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



Walter Busby, Co-Chairman
Associate Professor of Foundations
of Education

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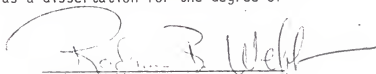
Hannelore Wass
Professor of Foundations of Education

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Robert L. Ziller
Professor of Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



Rodman Webb
Associate Professor of Foundations
of Education

This dissertation was submitted to the Graduate Faculty of the Department of Foundations of Education in the College of Education and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

June 1978



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